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COMPOSITE RUDDER - A PRELIMINARY REPORT.

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Abstract : This report deals with preliminary results of static testing of DO 228 Composite Rudder. Aerodynamic loads on the rudder were estimated using pressure distribution curves. A whiffle tree was designed and fabricated. Torsional and bending loads were applied on the rudder and the deflections on the trailing edge and on the sparline were measured. These deflections were compared with that of the metallic rudder. A detail structural qualification test is planned.